

#### ABSTRACT OF THE DISCLOSURE

A device and method for the temperature control, concentration, volume measurement and transport of microfluidic volumes are provided. The device includes one or more heating elements having a resistive material that varies with temperature. The heating elements are formed into a laminar body that may be formed into a variety of geometries and/or easily married to a second body including micro-well plates, micro-centrifuge tubes and microfluidic circuits.